

## GLOBAL SHOCKS AND THEIR IMPACT ON NIGERIA: LESSONS FROM GLOBAL FINANCIAL CRISIS

*Alege, P.O*

Department of Economics and Development Studies, Covenant University, Ota

*Ojapinwa, T.V*

Department of Economics, Lagos State University, Lagos

*Bello, H.T*

Department of Economics, Lagos State University, Lagos

---

### Abstract

Developed a five variable VAR model of the Nigeria economy for period 1970 – 2010, the study tested the general wisdom, “Global financial crisis does not impact on Nigeria economy”. Data were mainly sourced from both the National Bureau of Statistics (NBS) and the publication of the Central Bank of Nigeria (CBN). Augmented Dickey Fuller (ADF) and Philips-Perron (PP) tests were used in testing the null hypothesis that there is a unit root in the time series of interest. The variables considered were (1) log of GDP (2) log of FDI (3) log of REM (4) EXR and (5) CPI. Impulse-response functions were employed to examine the recovery from shocks makes full use of the within-country variation. We introduced the constant term and two lagged values of each variable in each equation and found that the impact of financial crisis on Nigeria was possible through financial links, trade links, remittances and other capital flows. This implies that the common belief about the Nigeria economy that global shocks through financial crisis does not have any impact is not quite accurate, for initially the global shocks made unstable the Nigerian economy through the macroeconomic variables understudied although after the initial instability resulting from the global shocks, the Nigeria economy then dependent less on fluctuations in the global economic crisis. We on that premise opined that the crisis presented an opportunity for Nigeria to unbalance the Nigeria economy by concentrate on leading sectors like power, education, agriculture so that the development of these sector can bring about a locomotive growth and results in balanced sector in the long run.

---

**Keywords:** Global shocks, financial crises, Nigeria

### 1.1 Background to the Study

What began as a bursting of the U.S. housing market bubble has ballooned into a global financial and economic crisis, leading to the most severe global recession since the Great Depression of the 1930s. It should be recalled that the Keynes and Keynesianism was a response to that depression. Estimates for 2010 suggest that the global financial crisis had already substantially slowed growth in most developing countries, thrusting millions back into poverty and setting back efforts to achieve the Millennium Development Goals (MDGs) (Arief et al, 2010). The financial crisis arose in the industrial countries, but has affected developing countries through higher interest rates, sharp changes in commodity prices, and reductions in investment, trade, migration and remittances and other capital flows. For most low-income countries, shocks that affect food prices or wage rates for unskilled workers seem likely to have the largest impact on poverty, with the declines in key food prices associated with the crisis helping to reduce poverty, while declining trade, investment, remittance other capital flows have had adverse impacts on the poor (Lin and Martin, 2010).

Ironically, developing economies may not have played a major role in the onset of the crisis, but they may have less resilient economic systems that can be highly affected by actions in global markets. Most industrialized countries have been able to finance their own rescue packages by borrowing domestically and in international capital markets, but many emerging market and developing economies have insufficient sources of capital and have turned to help from regional development banks, the IMF, the World Bank, and traditional donors such as the Group of Eight (G-8).

In August 2009, Congressman Gregory Meeks led a congressional delegation to Africa focusing on the impact of the economic crisis. In the same period, President Obama notified Congress that some African countries— would benefit from funds appropriated by Congress in 2009 for “assistance for vulnerable populations in developing countries severely affected by the global financial crisis,” with various eligibility requirements. A total of \$255.6 million in Economic Support Funds (ESF) were appropriated for this “crisis fund” in the Supplemental Appropriations Act, 2009 (P.L. 111-32). As of early 2010, \$32.5 million had been obligated for programs in Ghana, \$25.2 million for Liberia, \$37.9 million for Tanzania, and \$25 million for Zambia. In November 2009, U.N. Secretary-General Ban Ki-moon stated that Africa’s future economic prosperity would require industrialization, improved access to global markets, and a “green agricultural revolution.”<sup>7</sup> International

attentions has also focused on stemming Africa's illicit economies, including bribery, theft, money laundering, and trafficking in people, narcotics, and weaponry (Arieff et al, 2010).

Although the initial belief was that Nigeria would be immune to the shock since the economy was not deeply integrated in the global financial system. But somewhat the indirect impact of the crisis eventually took its toll in the economy that was purported to be insulated. The impact of the shock reached the shores of Nigeria on August, 2008, but not until December, 2008, the effect became pronounced (Akperan, 2009). Oil prices fell from a high of \$147 in July 2008 to below \$40 January 2009 (Muhtar, 2009). Consequently the main external effects of the global crisis are transmitted to Nigeria through the oil price. Some of the studies conducted identified the impact of the crisis on the Nigerian economy to include; low prices in commodities and fall in prices of oil and non-oil products (e.g. Teriba, 2009; Okonjo-Iweala, 2009; Dike, 2008; Adamu, 2008; Olu and Tayo, 2009 and Chukwuma, 2009). But most of the studies did not evaluate the impact of the global financial shock on Nigerian capital inflow which was bane to economic growth and development.

In principle, a temporary negative shock to external demand or the terms of trade in a standard neoclassical growth model would be followed by a quick reversion to the steady state level of income, implying a growth "bounce-back" and benign transitory effects. However, history is not very optimistic that Nigeria can uniformly escape global shocks without absorbing long-lasting damage to both growth and welfare. Over the past few decades, the growth rate in one decade has generally been a poor predictor of its growth rate during the next decade, while many policies and country characteristics are more stable (Easterly et al, 1993). One influential view is that, as Easterly et al. put it: "shocks, especially shocks to the terms of trade and foreign capital inflow are important determinants of long term growth over 10-year periods, and that they can help account for low growth persistence." (Harrod-Domar, 1947 and 1959).

There is an extensive theoretical literature that explores the possibility of growth nonlinearities that may result in Nigeria falling into prolonged periods of underdevelopment, commonly known as poverty traps. Nonlinearities in growth have been highly influential in shaping the thinking of both growth theorists and empiricists in recent years. The work on multiple-growth regimes and the world income distribution suggests that there may be growth factors strong enough to overcome the decreasing marginal productivity of the neoclassical production function, thereby producing persistent underdevelopment and income divergence across countries (Bowles et al, 2006)

Whether there will be a persistent negative growth effect of the shocks on Nigerian depends crucially on the nature of the shock, its transmission mechanism, through higher interest rates, exchange rate, sharp changes in commodity prices, reductions in investment, trade, migration and remittances and other capital flows and the policy response. For example, is the shock transmission mechanism the same as in the emerging markets and advanced economies? How does its dynamic path compare to previous global crises? The growth effect will also be a function of country-specific characteristics; that is, the ability of a country to absorb the shock quickly based on sound market fundamentals, favourable initial conditions, structural reforms and prudent procyclical policies.

This paper puts the current crisis in historical perspective and examines the relationship between the 1929 and the 2007 shocks. In the analysis that follows, we focus on the impact of the shocks on economic performance through- food prices, trade, domestic investment, remittances and FDI. The analysis will be based on vector author regressive model. Specifically, we employ an impulse-response method. Employing impulse response functions to examine the recovery from shocks makes full use of the within-country variation. Our last exercise is concerned with the longer-run implications of the crisis, using recently-developed methods to capture possible sharp structural down-breaks in growth rates.

Though earlier studies conducted, analysed the effects of low revenue on the economy as orchestrated by fall in oil price, this study focuses on how the global shocks affected the capital flow and some macroeconomic fundamentals. Beside, the study is justified because there is currently no empirical research on how global financial crises affect decentralisation processes in foreign capital inflow in Nigeria (Karem, 2009). The study is therefore focused (1) to examine empirically the relationship between global shocks through economic crisis and some selected macroeconomic variables in Nigeria.

## **2.1 The Impact of Global Financial Crisis in Nigerian: a Review of Literature**

Jawadi et al (2010) investigate the hypothesis of efficiency of central bank intervention policies within the current global financial crisis. They firstly discuss the major existing interventions of central banks around the world to improve liquidity, restore investor confidence and avoid a global credit crunch and then evaluate the short-term efficiency of these policies in the context of the UK, the US and the French financial markets using different modelling techniques. On the one hand, the impulse response functions in a Structural Vector Autoregressive (SVAR) model are used to apprehend stock market reactions to central bank policies. A two-regime Smooth Transition Regression-Generalized

Autoregressive Conditional Heteroscedasticity (STR-GARCH) model is estimated to explore the complexity and nonlinear responses of stock markets to exogenous shifts in monetary policy shocks. Their findings show strong repercussions from interest rate changes on stock markets, indicating that investors keep a close eye on central bank intervention policies to make their trading decisions. The stock markets lead monetary markets, however, when central banks are slow to adjust their benchmark interest rates.

Karem (2009) on the impact of financial crises on decentralisation process revealed that the effects of the financial crisis on developing countries were possible through financial links, trade links, and remittances and find out that the effects of a financial crisis on an economy will vary according to the nature of the crisis and the economy's structure. According to Karem, financial crises can affect central government through revenue in terms of lower corporate taxes, as well as through lower income tax and VAT revenues. Also, his study revealed that the financial crisis can lead to decrease in royalties and mining taxes; lower import taxes; and lower capital income to the central government. In this situation, according to him central government may opt to cut down in social sector service delivery and in local budgets for the benefit of the national budget. The literature opined that financial crises can be transmitted to local governments through higher unemployment and social needs, and through difficulties in investment financing. The problem of unemployment, in turn, would prompt urban to rural migration, as has been noted in China and in the case of Cambodia construction workers in 2008. He further revealed that is possible that decentralisation might contribute to financial crises especially in the few instances where there are not strict regulations for local government borrowing. However, financial crises can serve as an opportunity for reform and to set up social safety.

Olu and Tayo (2009) examined the impact of the global financial crisis in Nigeria. According to them the impact has different ramifications for the capital market, the banking sector, foreign exchange and the balance of payments, as well as the real sector. They asserted that the impact of the global financial crisis is transmitted through decreased prices of oil exports to the Nigerian economy leading to a decline in external reserves and hence accruable revenue. They argued that the impact is more severe in Nigeria than in other countries in the region because of its almost total reliance on oil revenue to run its economy. Their findings confirm the impact of negative oil price shocks on macroeconomic variables and poverty/household welfare in the Nigeria. The shocks have increased the level of poverty and worsened household welfare over the period August 2008 to January 2009 and are expected to worsen them in 2010 (Amba, 2011).

In his study Dike (2008) saw the new global financial and economic crisis as an added burden on poor nations as their economies are affected directly or indirectly. Dike said Nigeria might experience worst of the crisis because it depends on foreign aid, remittance from abroad and trade for its economies activities. He concluded that Nigerian government should reduce waste and improve social environment with rapid industry and service sector, job creation to reduce the rising youth unemployment and underemployment in the society. Also, he suggested massive investment in the non-oil and agricultural sector of the economy, commitment to sustainable monetary and fiscal policies, and sufficient highly skilled personnel to supervise the needed reforms and manage the affairs of the nation.

Similar study by Chukwuma (2009) however noted that Impact on the Nigerian Economy led to declining capital inflows in the economy, de-accumulation of foreign reserves and pressure on exchange rate. Impact could also be felt in limited foreign trade finances for banks and divestment by foreign investors. According to him the attendant effects would be increased pressures to spend the 'excess crude', falling commodity prices abroad and freight costs cheapen imports and threaten domestic industrial and productive base. He further opined that the crisis also presented an opportunity for Nigeria to concentrate on other neglected sectors like agriculture solid minerals; gas; infrastructure, etc A side Lower world prices will benefit Nigeria because of her large imports.

Peter (2009) examined the impacts of the global financial crisis on the Nigerian banking industry before and after the financial crisis. Findings obtained from the research show that the banking sector before the global financial crisis was sound and vibrant enough to support the nation's economic growth and development. This according to him is evident from the questionnaire that was distributed to stakeholders in the banking industry. However, the crisis has eroded the confidence of the general public in the Nigerian banking industry, despite their consolidation. Even the Nigerian Stock Market (NSM) which is expected to act as buffer of fund is not left out of the financial crisis. He argued that the banks became vulnerable because of their over reliance on foreign financial institution and banks for credit lines. Peter suggested that to avoid this, the Nigerian government through the CBN should organize and strengthen the growth of institutions like the pension fund, Housing fund, Health insurance fund through a financial liberalization policy. Furthermore, the Nigerian government should find alternative ways to fund budget deficit so as to reduce the pressure of financing projects in the real sector of the Nigerian economy by banks.

### 3.1 Methodology

The research study is essentially to analysis the impact of the shocks on economic performance through- food prices, exchange rate, remittances and FDI. The analysis will be based on vector autoregressive model. Specifically, we employ an impulse-response method. Employing impulse response functions to examine the recovery from shocks makes full use of the within-country variation.

Data will be generated in line with the period covered by the study which is 1970-2008. The sources of data for this study are mainly secondary in nature. These include the reports from International Financial Statistics (IFS), the publications of National Bureau of Statistics, publication of the Central Bank of Nigeria (CBN) which includes; the statistical bulletin, annual report and statement of accounts, financial review of various years and other related items. Other sources of data used are journals research papers, text books and other academic works directly related to this work.

#### 3.1.1 Model Specification

Following the theoretical background of this study, and using the autoregressive framework developed by Sims (1980) we specify a VAR model of the 2<sup>nd</sup> order. The general form of a VAR model is given by the following unrestricted (reduced form) system.

$$Z_t = \alpha + \psi \sum_{k=1}^K Z_{t-k} + ut$$

Where  $Z_t$  is a vector of the  $\eta$  (stationary endogenous)

Variable,  $\alpha$  is an  $n \times 1$  vector of constants,

$\psi \sum_{k=1}^K$  is an  $n \times n$  matrix of (lagged) polynomial

Coefficients, and  $ut$  is an  $n \times 1$  vector of white noise innovation terms with  $E \sum_{k=1}^K = 0$  and

$E \sum_{k=1}^K u_{tk}, u_{sk} = 0$  for  $t \neq s$ ). The disturbance term,  $ut$ , also has a covariance matrix,

$E \sum_{k=1}^K u_t u_t' = \Sigma$ . Finally, the lag operator is defined as  $\psi \sum_{k=1}^K = \psi_1 + \psi_2 L + \dots + \psi_K L^{K-1}$  of degree  $K-1$  and  $\psi_j$  for  $j=1, \dots, K$ .

More specifically, our model which also incorporates the above Direct and Indirect linkages is presented as follows:

$$GDPPC = f(FDI, REM, EXR, INFL)$$

$$GDPPC_t = \beta_{0it} + \sum_{j=1}^{n-i} \beta_{1ij} GDPPC_{t-j} + \sum_{j=1}^{n-i} \beta_{2ij} FDI_{t-j} + \sum_{j=1}^{n-i} \beta_{3ij} REM_{t-j} + \sum_{j=1}^{n-i} \beta_{4ij} EXR_{t-j} + \sum_{j=1}^{n-i} \beta_{5ij} INFL_{t-j} + U_{1t}$$

$$FDI_t = \beta_{0it} + \sum_{j=1}^{n-i} \beta_{1ij} FDI_{t-j} + \sum_{j=1}^{n-i} \beta_{2ij} GDPPC_{t-j} + \sum_{j=1}^{n-i} \beta_{3ij} REM_{t-j} + \sum_{j=1}^{n-i} \beta_{4ij} EXR_{t-j} + \sum_{j=1}^{n-i} \beta_{5ij} INFL_{t-j} + U_{2t}$$

$$\begin{aligned}
REM_t &= \beta_{0it} + \sum_{j=1}^{n-i} \beta_{1ij} REM_{t-j} + \sum_{j=1}^{n-i} \beta_{2ij} GDPPC_{t-j} + \sum_{j=1}^{n-i} \beta_{3ij} FDI_{t-j} + \sum_{j=1}^{n-i} \beta_{4ij} EXR_{t-j} + \sum_{j=1}^{n-i} \beta_{5ij} INFL_{t-j} + U_{3t} \\
EXR_t &= \beta_{0it} + \sum_{j=1}^{n-i} \beta_{1ij} EXR_{t-j} + \sum_{j=1}^{n-i} \beta_{2ij} GDPPC_{t-j} + \sum_{j=1}^{n-i} \beta_{3ij} FDI_{t-j} + \sum_{j=1}^{n-i} \beta_{4ij} REM_{t-j} + \sum_{j=1}^{n-i} \Omega_{ij} INFL_{t-j} + U_{4t} \\
INFL_t &= \beta_{0it} + \sum_{j=1}^{n-i} \beta_{1ij} INF_{t-j} + \sum_{j=1}^{n-i} \beta_{2ij} GDPPC_{t-j} + \sum_{j=1}^{n-i} \beta_{3ij} FDI_{t-j} + \sum_{j=1}^{n-i} \beta_{4ij} REM_{t-j} + \sum_{j=1}^{n-i} \beta_{5ij} EXR_{t-j} + U_{5t} \\
&\beta_0, \beta_1, \beta_2, \beta_3, \beta_4 \text{ and } \beta_5
\end{aligned}$$

are the unknown parameters where  $\beta_0$  is the constant or intercept and

GDPPC= gross domestic product per capita

FDI = foreign direct investment

EXR = Exchange Rate

REM = remittance

INFL = Inflation

$\sum \beta_{ij} GDPPC_{t-j}$  = Sum of the lags of gross domestic product per capita from period t to j

$\sum \beta_{ij} FDI_{t-j}$  = Sum of the lags of foreign direct investment from period t to j

$\sum \beta_{ij} EXRT_{t-j}$  = Sum of the lags of exchange rate from period t to j

$\sum \beta_{ij} REM_{t-j}$  = Sum of the lags of remittances from period t to j.

$\sum \beta_{ij} INFL_{t-j}$  = Sum of the lags of Inflation from period t to j

The method used in this study being the Vector Auto Regression (VAR) model, is better explains a revolving door model. This choice of the estimation technique is as a result of the fact that Vector Auto Regression model best captures the two-way relationship between shocks, and other variables used and their related lags. A unique feature of the VAR model is that an endogenous variable in one equation of the system appears in another equation as an explanatory variable thereby becoming stochastic and correlated with the disturbance term (Shock or impulse term) of the equation. Also, in a VAR model, variables are treated equally and no distinctions are made between endogenous and exogenous variables. Hence, the Ordinary Least Square (OLS) technique will appear to produce results that are inconsistent.



## 4.1 Presentation and Analysis of Result

### 4.2 Presentation of Result

The vector autoregressive method of estimation of the 2<sup>nd</sup> order was used. This is because in choosing the appropriate order of VAR, one must take into account the possibility of running into the problem of lost degree of freedom or the problem of multicollinearity. It is to this end that in choosing the best order to give us a result that is manageable, we adopt a 2 lag VAR model.

#### 4.2.1 Unit Root Tests

The Augmented Dickey Fuller (ADF) and Philips-Perron (PP) tests are used in testing the null hypothesis that there is a unit root in a particular time series of interest. While ADF test correct for higher order serial correlation by adding lagged differenced terms on the right-hand side, the PP test makes for correction to the t statistics of the coefficient from the AR(1) regression to account for the serial correlation in error term. So, the PP statistics are modifications of the ADF t statistics that take into account the less restrictive nature of the error process therefore it is good for the researcher to test the order of integration of a series performing the PP test as well (Asteriou and Hal, 2003). These are not the only tests available, but they remain the most widely used approaches. The unit root tests are presented in table 1. For the Philips-Perron test, the spectral estimation is based on the Bartlett Kernel Method while the bandwidth is selected based on the Newey-West, 1987 approach. This is also presented in the same table with the ADF.

Table 1: Augmented Dickey Fuller and Philip Peron(PP) test results

#### Variables

##### LGDP at levels

##### LGDP

ADF		-3.2843	PP	-3.2149
CRITICAL VALUE	1%	-3.6268		-3.6268
	5%	-2.9458		-2.9458
	10%	-2.6115		-2.6115

##### LFDI

ADF		-0.0099	PP	-0.2106
CRITICAL VALUE	1%	-3.6156		-3.6156
	5%	-2.9412		-2.9415
	10%	-2.6090		-2.6091

##### LREM

ADF		-2.1096	PP	-2.1096
CRITICAL VALUE	1%	-3.6156		-3.6156
	5%	-2.9412		-2.9412
	10%	-2.6091		-2.6091

## LEXR

ADF		0.3743	PP	0.3573
CRITICAL VALUE	1%	-3.6156		-3.6156
	5%	-2.9412		-2.9412
	10%	-2.6091		-2.6091

## CPI

ADF		-3.2464	PP	-3.2172
CRITICAL VALUE	1%	-3.6156		-3.6156
	5%	-2.9412		-2.9412
	10%	-2.6091		-2.6091

## AT FIRST DIFFERENCE

## LGDP

ADF		-8.1344	PP	-9.0416
CRITICAL VALUE	1%	-3.6394		-3.6394
	5%	-2.9511		-2.9511
	10%	-2.6143		-2.6143

## LFDI

ADF		-5.0537	PP	-5.1940
CRITICAL VALUE	1%	-3.6210		-3.6210
	5%	-2.9434		-2.9434
	10%	-2.6103		-2.6103

## LREM

ADF		-3.7532	PP	-6.1789
CRITICAL VALUE	1%	-3.6210		-3.6210
	5%	-2.9511		-2.9511
	10%	-2.6143		-2.6143

## LEXR

ADF		-3.7532	PP	-6.1789
CRITICAL VALUE	1%	-3.6210		-3.6210
	5%	-2.9511		-2.9511

	10%	-2.6143		-2.6143
CPI				
ADF		-3.7532	PP	-6.1789
CRITICAL VALUE	1%	-3.6210		-3.6210
	5%	-2.9511		-2.9511
	10%	-2.6143		-2.6143

Table1. reveals that at levels, only GDP and CPI were stationary at 5% and 10% while after taking the first difference, they all become stationary. This imply that GDP, FDI, REM, EXR, and CPI are stationary and integrated of order one i.e. I(1). The stationarity of the variables satisfied the condition for conducting further test.

#### 4.1 Analysis of Result

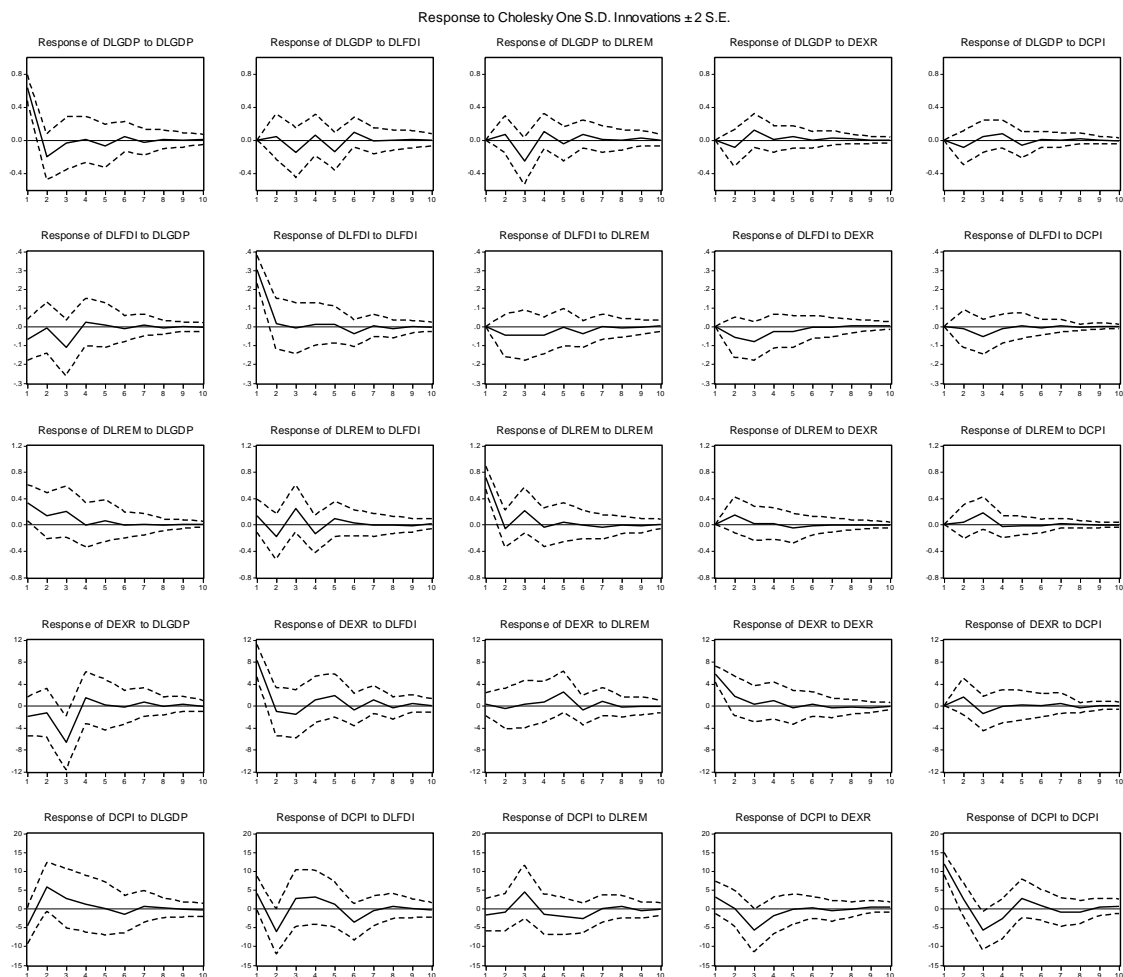
##### 4.2.1 Impulse Response Functions (IRF)

Impulse response functions are devices to display the dynamics of the variables tracing out the reaction of each variable to a particular shock at time 't'. Figure 1.0 shows the impulse response functions of one of the variables (gross domestic product, remittances, foreign direct investment, exchange rate, and inflation (CPI)) as against their own shocks and shocks in one other variable over a 10 year horizon. It can be deduced from figure 1.0 that past GDP shocks through global financial crisis had positive impact initially with current GDP from year 1 to year 2. From year 3 to year 7, the impact was unstable with both positivity and negativity, for by period 8 into the future, the Nigerian economy is now less dependent on global financial crisis. In the case of the response of GDP to FDI, there was zero response initially but by year 2 till the 6<sup>th</sup> year the global financial crisis brings about instability in the FDI. But from period 6, impacts of global shocks through GDP to FDI fizzled out. Similarly, a change of one standard deviation in the error term of GDP equation will have unstable positive and negative impact on REM but from the 6<sup>th</sup> year period the shocks has no effect even into the future. Although, the response of GDP to EXR was negative till period 2 and positive in 3 afterward the impact became unnoticeable. So also is the impact of the global shocks to GDP through the consumer price index.

The response of FDI to GDP was surprisingly negative till period 4 before it became smoothed out. For the response of past FDI to current FDI it was positive till period 2 and after then the impact became unnoticeable. FDI responded to REM and EXR negatively from

period 1 till 7 but as for CPI there was no impact initially. The was negative in period 3 and from 4 the shocks became impact less. The positive response of REM to GDP from period i till 4 was noticeable. That of REM to FDI and past REM to current REM bring about instability initially unlike the result of REM to EXR and CPI which after the positive impact in the 1<sup>st</sup> and 2<sup>nd</sup> periods the shocks became less dependent on fluctuation in the global financial crisis.

Finally, inflation responded negatively due to GDP from year 1 but was very positive up to the 5<sup>th</sup> year. Response of inflation to FDI shocks was unstable between year 1 and 2. In fact the instability in the impact continues to year 8, but fizzled out rapidly from year 9 to year 10. However, shocks in past CPI to current CPI were initially positive in period 3 it became positive and continues to be unstable not until year 9 whiles the fluctuation became normalized.



*Fig 1.0*

The result of our analysis is relevant to the Nigerian policy makers who desire to understand the dynamics of the Nigerian economy. Our analysis has revealed that GDP shocks tend to affect initially both positively and negatively the macroeconomic variables in Nigeria. Sudden changes or shocks in Gross domestic Product through foreign direct investment, remittances exchange rate and consumer price index tend to have no impact on the growth of Nigerian economy after 6 periods time averagely..

### **5.1 Summary, Conclusion and Recommendation**

On a general note, the study tested the general wisdom, “Global financial crisis does not impact on Nigeria economy”. Developed a-five variable VAR model of the Nigeria economy for period 1970 – 2008 the variables considered were (1) log of GDP (2) log of FDI (3) log of REM (4) EXR and (5) CPI. We introduced the constant term and two lagged values of each variable in each equation.

Our result is in line with that of Kareem (2009) who concluded that the impact of financial crisis on developing countries was possible through financial links, trade links, and remittances. However this study agrees with the findings of Dike (2008) who finds out that the global financial and economic crisis as an added burden on poor nations as their economies are affected directly or indirectly. This study therefore disagree with Dike who said Nigeria might experience worst of the crisis because it depends on foreign aid, remittance from abroad and trade for its economies activities. Similar the study however concluded that global shocks Impact on the Nigerian Economy led to declining capital inflows in the economy, reduction of remittances, pressure on exchange rate and inflation rate however these impact could be felt in limited initial periods.

On the basis of the above results we therefore conclude that the common believe about the Nigeria economy that global shocks through financial crisis does not have any impact is not quite accurate, for initially the global shocks made unstable the Nigerian economy through the macroeconomic variables understudied although after the initial instability resulting from the global shocks, the Nigeria economy is now less dependent on fluctuations in the global economic crisis.

We therefore opined that the crisis presented an opportunity for Nigeria to concentrate on other neglected sectors like agriculture solid minerals; gas; infrastructure, etc A side Lower world prices will benefit Nigeria because of her large imports. Our recommendation follows that of Dike(2008) by concluding that Nigerian government should reduce waste and improve social environment with rapid industry and service sector, job creation to reduce the

rising youth unemployment and underemployment in the society. Also, we are suggesting massive investment in the non-oil and agricultural sector of the economy, commitment to sustainable monetary and fiscal policies, and sufficient highly skilled personnel to supervise the needed reforms and manage the affairs of the nation.

### References:

- Adamu A. (2008). The Effects of Global Financial Crisis on Nigerian Economy:  
<http://www.cnn.com/2008/POLITICS/09/17/stiglitz.crisis/index.html>.
- Akperan, J. (2009). Implications of Global Financial Meltdown and Macroeconomic Policy in Nigeria: A Paper presented at the National Workshop on “Global Financial Meltdown and the Nigerian Banking/Financial Sector”.
- Arief, A. Martin A. W. and Vivian, C. J.(2010).The Global Economic Crisis: Impact on Sub-Saharan Africa and Global Policy Responses.*Congressional Research Service*
- AMBA, D. A. (2011).An Evaluation of the Impact of the Global Financial Crisis on Nigerian Fiscal Federalism. *International Research Journal of Finance and Economics - Issue 66*.
- Asteriou, D. and Hal S. (n.d)*Applied Econometrics: A modern Approach* Using Eviews and Microfit revised Ed, Palgrave Macmillan.
- Bowles, S., Durlauf, S. N and Hoff, K. R. (2006) Poverty Traps, Russell Sage Foundation.
- Central Bank of Nigeria (2009); *Annual Report and Statement of Accounts*, December, Abuja.
- Central Bank of Nigeria (2009); *statistical bulletin*, December, Abuja
- Chukwuma, C. S. (2009). Global Financial and Economic Crisis: How Venerable is Nigeria.
- Dickey, D. and W. Fuller (1979). “Distribution of the Estimators for Autoregressive Time Series with a Unit Root,” *Journal of the American Statistical Association*, 74, 427-431.
- Dickey, D. and Fuller, W. A. (1981).Likelihood Ratio Statisticsfor Autoregressive Time Series with a Unit Root,*Econometrica*, 49, 1057-1072.
- Dike, E. V. (2008).Nigeria and the New Global Economy Luck? Country Growth Performance and Temporary Shocks,” *Journal of Monetary* March 16, 2009
- International Monetary Fund, African Department (2009): Impact of the Global Financial Crisis on Sub-Saharan Africa
- Easterly, W., Kremer, M. Pritchett, L and Summers, L. H.(199) Good Policy or Good Luck? Country Growth Performance and Temporary Shocks,” *Journal of Monetary Economics*, 32, pp. 459–483.
- Jawadi, F;Aroui , M and DucKhuong N. (2010) Global financial crisis, liquidity pressure in

stock markets and efficiency of central bank interventions *Applied Financial Economics*, 2010, vol. 20, issue 8, pages 669-680.

Jhingan, M.L, (2007) *The economics of Development and Planning* 39<sup>th</sup> revised and enlarged edition. Vrinda Publications (P) Ltd.

Karem R. (2009). *Impact of the Financial Crisis on Decentralisation Processes: literature review* commissioned by the European Commission (EC) through Governance and Social

Development Resource Centre (GSDRC)

Muhtar M. (2009). *Challenges and Focus of the 2010 Budget: Presentation to the Budget Consultative Forum.*

Okonjo-Iweala, O. (2009). *The Global Financial Crisis: Impact and Implications for Nigeria: Distinguished Lecture* delivered at the African University of Science & Technology, Abuja, March 16, 2009

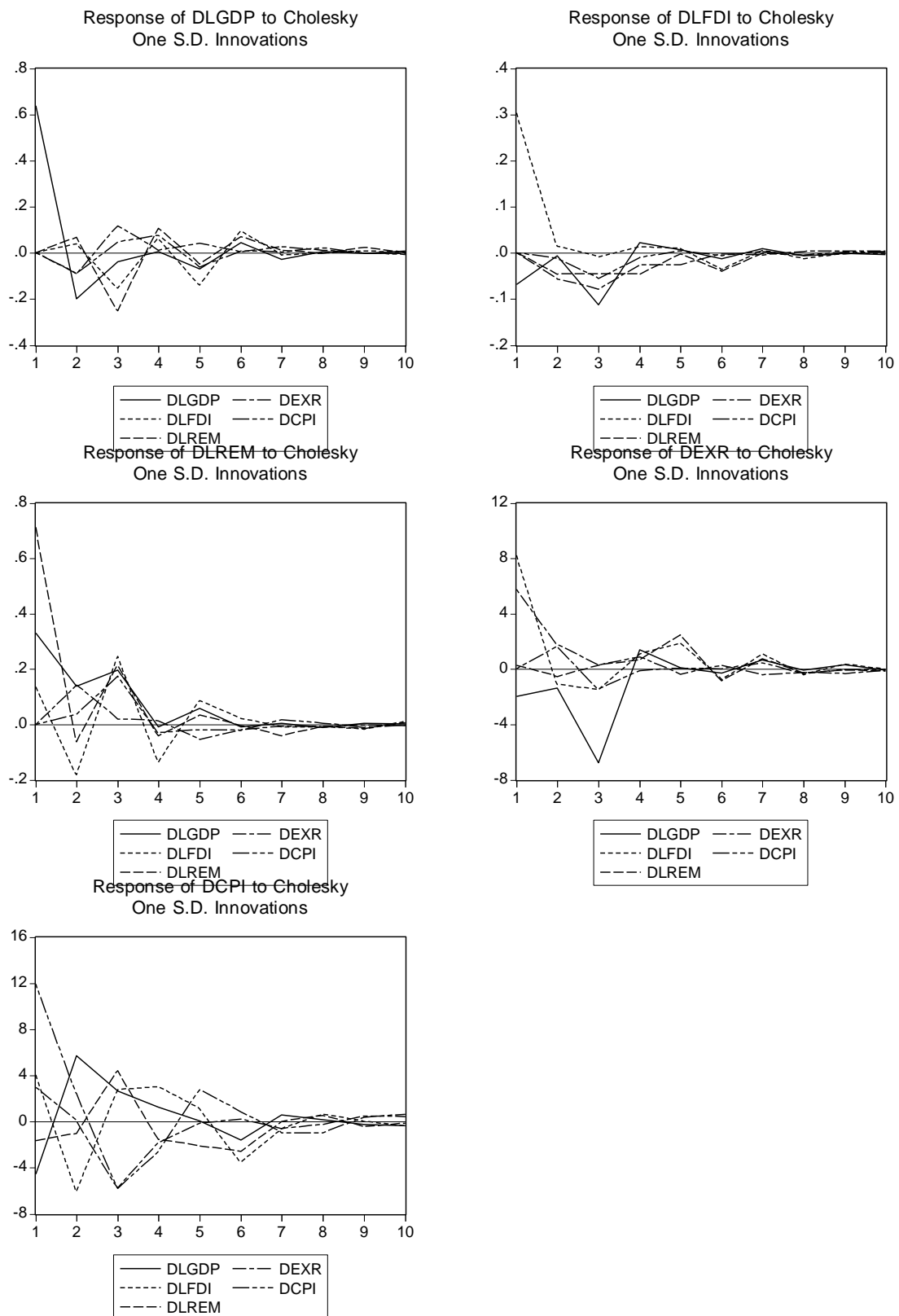
Olu, A. and Fakiyesi, T. (2009). *Global Financial Crisis Discussion Series Paper 8: Nigeria.* Overseas Development Institute 111 Westminster Bridge Road London SE1 7JD.

Tella, A. S. (2009). *Global Financial Contagion: A Paper presented at the National Workshop on Global Financial Meltdown and the Nigerian Banking/Financial Sector.*

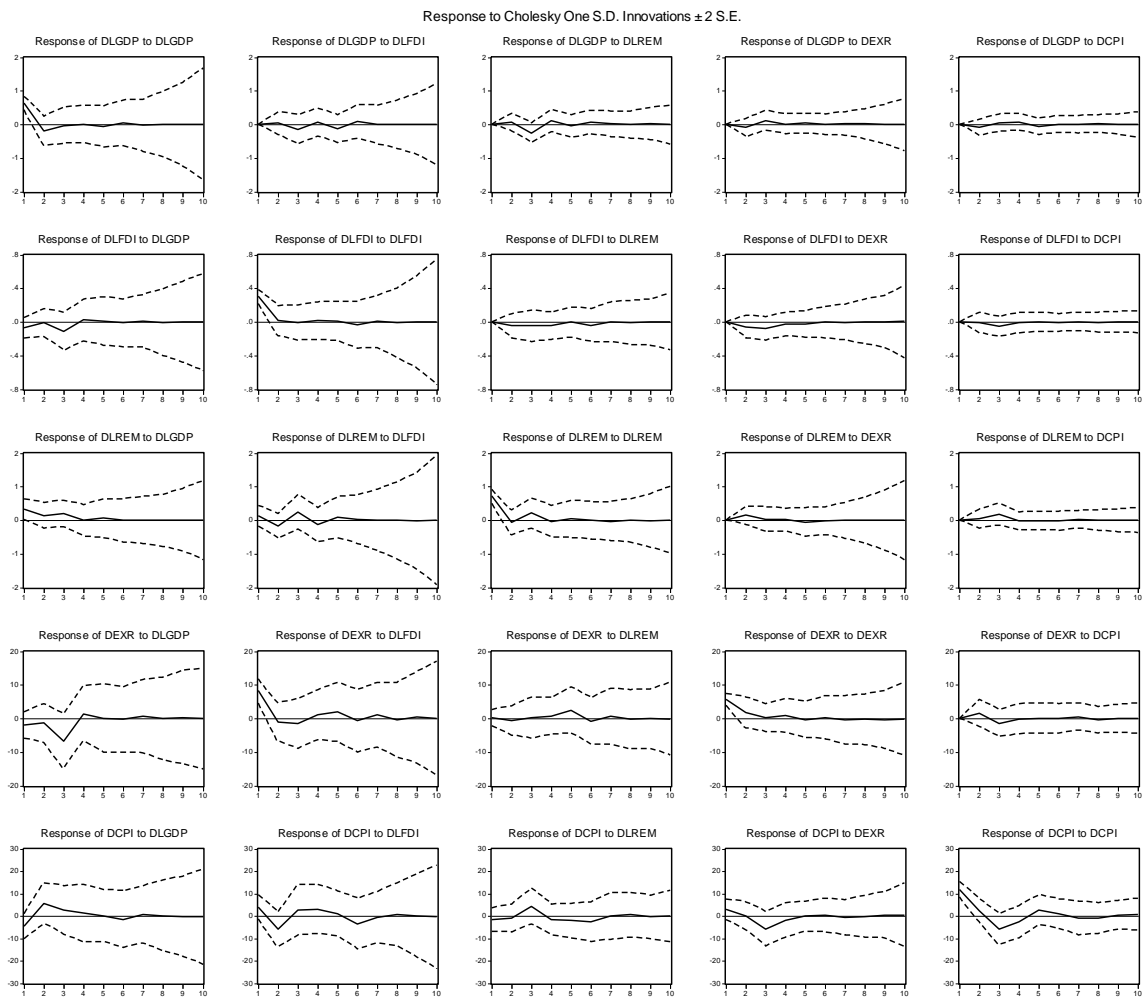
Teriba, A. (2009). *Impact of the Global Economic and Financial Crisis: A Paper presented at the National Workshop on “Global Financial Meltdown and the Nigerian Banking/Financial.*

World Bank (2008); *2008 World Development Indicators*, The World Bank, Washington, D. C.

## Appendix:







Result of the combined graph and Monte Carlo Accumulation Response are presented respectively in the appendix.